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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,881	02/08/2001	Tin Cheung Wong	12027-0002	6685

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CLARK & BRODY  
Suite 600  
1750 K Street, NW  
Washington, DC 20006

EXAMINER

WOO, ISAAC M

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 08/12/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/778,881

Applicant(s)

WONG, TIN CHEUNG

Examiner

Isaac M Woo

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 8-17 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 is/are ~~withdrawn from consideration~~ *cancelled*.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This action is in response to Applicant's amendment, filed on June 12, 2003 have been considered but are deemed moot in view of new ground of rejections below.

2. Claims 1-7 are canceled. Claims 8-17 are newly added. And claims 8-17 are pending.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williard et al. (5,895,473, hereinafter "Williard") in view of Syeda-Mahmood (U.S. Patent No. 6,321,232).

With respect to claims 8 and 11, Williard discloses, the computer automated process (22, processor, FIG. 1) for identification, management and retrieval of engineering drawings in digital format, (col. 3, lines 12-25), (i) analyzing graphical and textual digital data (text extraction from engineering drawing, col. 2, lines 42-67 to col. 1-26) in a drawing using a central processing unit (22, processor, FIG. 1, col. 2, lines 43-67) to identify individual engineering drawings, see (col. 3, lines 12-25), to identify a series of discrete boxes (52, choosing title box is to discrete boxes, FIG. 3, col. 3, lines 46-63) within each engineering drawing containing predefined keywords (title, col. 4, lines 4-29) and to further identify any text contained within the drawing and within the discrete boxes, see (text extraction area from box, 44, FIG. 2, and 56, FIG. 3, col. 3, lines 45-67 to col. 4, lines 1-29); and (ii) storing the textual content in the discrete boxes in a memory means in a relational database (38, receiving database, FIG. 1) such that the textual content of the discrete boxes (46, FIG. 2, col. 3, lines 1-12) is stored by reference to the keywords of each discrete box (title (attribute) is used as keyword, col. 4, lines 15-63), and wherein the drawings can be identified and retrieved by reference (col. 3, lines 12-26). Williard discloses the retrieving drawings (col. 3, lines 12-26). Williard does not explicitly disclose retrieving drawing "by the keywords and or the contents of the discrete boxes and or the textual content of the drawing". However, Syeda-Mahmood discloses engineering drawing indexing system that localizes title blocks using location hashing, and extracts indexing text keywords from these regions is also described. This enables retrieving of drawing documents using the conventional machinery of text, see (col. 9, lines 35-49), which teaches that the engineering drawing

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is retrieved by keyword. Therefore, it would have been obvious a person having ordinary skill in the art the time invention was made to combine the retrieving drawing "by the keywords and or the contents of the discrete boxes and or the textual content of the drawing" of the system of Syeda-Mahmood with the system of Williard the keywords are used to retrieve drawing form database. Because keywords are normally used as query input to search database in the data management and retrieving system.

With respect to claim 9, Williard discloses, all the graphical digital data is analyzed by the central processing unit to identify any horizontal two point straight line array or multiple line array longer than a predetermined figure and wherein the central processing unit then identifies all lines that connect the end points of the horizontal two point straight line to establish a closed rectangular region and wherein any closed rectangular region not bounded by a larger closed rectangular region is identified as the boundary of each individual engineering drawing, see (FIG. 4A-C, col. 3, lines 45-67 to col. 4, lines 1-67 to col. 5, lines 1-5).

With respect to claim 10, Williard discloses, the graphical and textual digital data within the engineering drawing is analyzed by the central processing unit to identify two vertically or horizontally adjacent rectangular regions with a shared border and wherein one such rectangular box contains a series of discrete boxes in an orderly arrangement containing textual content, see (FIG. 4A-C, col. 3, lines 45-67 to col. 4, lines 1-67 to col. 5, lines 1-5).

With respect to claim 12, Williard discloses, the textual information contained within each engineering drawing may be stored in the storage means to enable the engineering drawing to be identified by reference to the textual information, see (col. 3, lines 12-45, col. 4, lines 16-51).

With respect to claims 13-17, Williard discloses, the engineering drawings stored in the storage means may be located, retrieved and displayed on a suitable display means by reference to the exact textual information sought and wherein the textual information may be readily identified by suitable means such as highlighting, see (FIG. 4A-C, col. 3, lines 45-67 to col. 4, lines 1-67 to col. 5, lines 1-5).

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bloomberg (U.S. Patent No. 5,202,933) discloses the system for differentiating and extracting text and line graphics in an image. The method provides for the use of morphological operations, preferably at reduced scale, to eliminate vertical rules and lines from an image followed by the elimination of horizontal rules and lines, remaining text regions are then solidified to produce a separation mask. The mask is used in conjunction with the original image to produce separate text and graphics images.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac M Woo whose telephone number is (703) 305-0081. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y Vu can be reached on (703) 305-4393. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

IMW  
August 6, 2003

  
KIM VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100